

We claim:

1. A device for the recombination of hydrogen and oxygen in a gas mixture, comprising:

a heating chamber;

a feed line for feeding a gas mixture having a hydrogen content with a parameter characteristic, into said heating chamber;

a blower connected in said feed line and having a delivery rate; and

a control unit associated with said blower for adjusting the delivery rate of said blower in dependence on the parameter characteristic for the hydrogen content of the gas mixture.

2. The device according to claim 1, including a hydrogen sensor for determining the hydrogen content of the gas mixture, said control unit having an input side connected to said hydrogen sensor.

3. The device according to claim 1, including a number of heating elements for heating said heating chamber.

4. The device according to claim 3, including flow pipes, each of said heating elements disposed within a respective one of said flow pipes.

5. The device according to claim 1, wherein said heating chamber has a downstream side, and a reaction chamber is connected at said downstream side of said heating chamber.

6. The device according to claim 1, including a static mixer connected downstream of said heating chamber.

7. The device according to claim 6, wherein the gas mixture has a flow path permitting said static mixer to be heated by a partial stream of the gas mixture heated as a result of a recombination reaction.

8. The device according to claim 1, including an internally insulated housing in which said heating chamber is disposed.

9. The device according to claim 8, wherein said heating chamber has a downstream side, a splash cooler is connected on said downstream side of said heating chamber, and said splash cooler has a housing directly connected to said internally insulated housing in which said heating chamber is disposed.

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10. The device according to claim 1, wherein the parameter characteristic is a measured temperature value of the gas mixture flowing out of said heating chamber.

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11. A method for the recombination of hydrogen and oxygen in a gas mixture, which comprises:

feeding a gas mixture through a feed line having a blower into a heating chamber; and

adjusting a delivery rate of the blower in dependence on a parameter characteristic for a hydrogen content of the gas mixture.

12. The method according to claim 11, wherein the parameter characteristic is a direct measured value of the hydrogen content.

13. The method according to claim 11, wherein the parameter characteristic is a measured temperature value of the gas mixture flowing out of the heating chamber.

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